



PUBLIC HOUSING SATISFACTION

By

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A Thesis Submitted to

The Department of Business Administration

in partial fulfillment of the requirements for

The Degree of Bachelor in Business Administration

Rabat

Morocco

Academic Year

2019-2020

ACKNOWLEDGMENTS

I would like to express my deep and sincere gratitudes to my research supervisor, **Dr. Hassan Belhiah** for his patience and immense knowledge; as well as **Pr. Saad Belkouch** for his invaluable guidance and advice for my first thesis and his friendship and empathy. They taught me the methodology to carry out the research and to present the research works as clearly as possible. I would also like to thank **Hajar Smires Bennani** for providing me with good advice, solutions when I meet obstacles and her continuous support.

My family has been kind enough to me, to take care of my daily meals for me, and help me with my research from time to time, the knowledge they have on this study's subject. I am extremely grateful for my parents, **Mr. Mohammed** and **Mrs. Rachida**, for encouraging me, and educating me, and for their sacrifices and love and providing me with the opportunity of where I stand now.

I would also like to thank 2 of the participants of this questionnaire who shall remain nameless, without them my questionnaire would have never reached the other participants, without their friendship and special actions for my sake, this thesis would not have reached its end.

Finally, I owe a special thanks to myself for fighting until the end and reaching my final year, writing this thesis during the covid-19 pandemic helped me do a limit testing of my ability to gather data and making the first academic work on public housing residents satisfaction in Morocco and understand that your personal network is a valuable and essential asset, that is surprisingly one of the strongest weapons you can have in your academic years, career, and life.

Finally, my thanks go to all the people who have supported me to complete the research work directly or indirectly.

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Declaration

I hereby declare that this dissertation is the result of my own work and that no part of it has been accepted for the award of any other degree of this university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.

Abstract

This thesis investigates the factors and levels of resident's satisfaction in the Kingdom of Morocco, we explore the different factors that impact the satisfaction of residents the most, and rank them according to the results obtained from the research. The main aim is to find the most common factors that influence satisfaction, and their effects on residents. Difficulties were found with the information available on this matter in Morocco, it is the first sample taken in Morocco, participants were asked to fill the questionnaire survey and leave comments if there are any. The time period that the questionnaire has been circulating is since the 22nd March. In order to collect data, only the online questionnaire was an option because of the health hazards the other methods would bring during this covid-19 pandemic. The respondents were completely anonymous and the survey oriented towards residents of public housing. The study analyzes the

factors and its rankings and the overall satisfaction of the residents with public housing in Morocco.

CHAPTER I: INTRODUCTION

1.1 Introduction:

Nowadays Morocco's population is 36.546.355 people and public housing has increased by 52% in 2000 and now it has reached 63%, that's over half of the population 20 years earlier, now public housing is everywhere with many companies emerging during these last two decades providing a lot of public housing. Now buying or building a house is an expensive milestone to achieve for the regular member of society, sometimes a very difficult one to do because of mortgage, so people now tend to switch their interest towards public housing because they are left with no other alternative.

1.2 Presentation of the problematic:

Public housing I known to be economic but comes with its own flaws, and the cons are easily outnumbering the pros, so in this thesis I will be exploring the levels of satisfaction of public housing, where I will talk about how much are the people residing in social housing satisfied and the common problems or events that you might encounter, whether it is with neighbours and privacy, safety and accidents, drugs, domestic abuse, violence, fires, and robberies.

- What is the state public housing in other parts the world?
- What is the state of public housing in Morocco?
- What are the factors that determine satisfaction?

1.3 Definitions and subjects:

- What is public housing?

Public housing was established to provide decent and safe rental housing for eligible low-income families, the elderly, and persons with disabilities. It is owned and managed by the government or non-profit organizations, usually with the aim of providing affordable housing.

In 2017, the government plans to build 800.000 low-cost housing units by 2022.

The Moroccan housing market has seen a housing deficit from 2002 where it was 1.2 million to 400.000 in 2018.

One of the problems we will be addressing is cement factories and finances of real estate activities; they hold a critical position in social housing. The concept of satisfaction we are looking for here is a large scale because of the differences of the socio-economic status of residents, satisfaction levels will vary between mortgage holders and renters.

-The main predictors of satisfaction in public housing are: Security, suitability of thermal and visual comfort, sizes of living and sleeping areas, entourage, and management of the housing estates. There are many factors that contribute to the satisfaction of the tenants, therefore we will be talking about how public housing became a better state of living for many people because of a famous program put together by the MHPV (Ministry of National Planning, Urban Planning, Housing, and City Policy), and kicked off by his Majesty the king Mohammed VI.

-Data is limited and practically non-existent in Morocco, much of the information is collected from community housing providers, real estate developers, and actual tenants. This work required a lot of effort and the lack of sufficient documentation made it more difficult.

-Residents' satisfaction with housing has been a guide for some developers, designers, and policy makers, who have endeavored to give housing to many people. The idea suggests that the occupants' needs have been met and that they are content in their homes. Disappointment infers that the inhabitants are not content and the result of this would be the desire to move out or to adjust the housing unit. There are obstacles preventing these changes, for example, lack of choice and resources, could bring about permanent disappointment.

-Either way a need emerges to examine inhabitants' satisfaction with public housing so as to measure the expectations, needs and preferences of the individuals, subsequently figuring out which elements are significant and the kinds of improvements that are required in existing and future housing development in Morocco.

CHAPTER II: REVIEW OF LITERATURE

2.1 A brief history of public housing:

Singapore

Public housing is often considered low in quality and high in crime but it's a totally different story in Singapore. Government built apartments in Singapore are clean, safe, and well-maintained and about 80% of Singaporean households live in them. Singapore is also one of the few countries in the world to achieve almost full homeownership status, over 90% of the city's households own their own homes, but it wasn't always this way. In 1959 when Singapore obtained self-governance from the British the city was having a severe housing crisis, struggling to accommodate its growing population. In 1960 Singapore's first Prime Minister Lee Kuan Yew and his government set up the Housing & Development Board (HDB) a public housing agency with a mission to build rental units for the poor, at the time many immigrants including those from Malaysia were living in unhygienic slums. Amid increasing racial tension between Chinese and Malays, the HDB had a hard time convincing them to leave their informal settlements for new high rises. Then came the

still unexplained fire which broke out in the squatter settlement of Bukit Ho Swee on May 25, 1961. An area of 400.000 square meters was raised; four people were killed and around 16 000 left homeless. The government successfully rehoused all of the fire victims within a year and built new housing on the site of the disaster in the next five years. Its speedy reaction won over the people and paved the way for future public housing projects. Singapore must be one of the few places in the world where a statutory board satisfactorily completed everything it set out to do in its first five year plan. By 1965 the HDB managed to build over 51.000 apartments rehousing 400.000 people, a quarter of the then population, solving the housing shortage. Apart from renting out apartments, HDB also started to sell them in 1964. Singaporean are required to save part of their salaries in a state managed plan called Central Provident Fund, at first the fund only provided for retirement, then in 1968 the government allowed the use of the fund for housing expenses helping more people become homeowners. Unlike many other countries Singapore's public housing is not only for the poor, instead it cates for the masses, citizens with uncertain income ceilings can buy various types of property from basic two-room apartments to up-market units in condominiums with a swimming pool and a gym. Their prices are usually 20% to 30% cheaper than those in the private market. But you've got to apply the order of the apartment first then wait several years for it to be built. Also you cannot sell it until you finish the five year minimum occupation period. Today HDB has planned, designed and built over 1 million apartments spreading over the city state, the percentage of people living in public housing has grown from 9% in 1969 to 82% in 2016, and the home ownership rate has also increased rapidly with the rise of Singapore's economy, Singapore's public housing is considered as one of the world's best but some see it as a way of social control, for instant, quotas ensure a mix of Chinese, Indians and Malays in each HDB block, aiming to carefully integrate ethnic groups and prevent the formation

of a volatile racial enclave but still a mighty agency with effective policies and strong political will has fixed Singapore's housing crisis and improved the living conditions of millions.

United States of America

2 million Americans are living in public housing, and though that is a sizable number it makes up a relatively small percentage of the population and it's low compared to other nations that offer similar housing initiatives like the United Kingdom. In spite of all of that we largely only hear news stories about public housing in the US when there is a moment of crisis or when decisions about state and federal budget are being handed down. One of the most famous public housing projects is the Chicago's Cabrini-Green homes which were built in 1942 and demolished by March 2011 due to highly publicized issues with gang violence, crimes, and neglected living conditions; it was home to 15.000 people living in mid and high rise apartment buildings totalling 3.607 units. The discourse on public housing is generally that they are riddled with maintenance issues, crime and unsightly exteriors, or are victims of budgetary constraints. The demolition served as an admission that high-rise public housing wasn't a good idea; the housing that replaced them is all low-rise projects. High-rise defines a multi-story structure between 35-100 meters tall or from 12-39 floors and low-rise residential buildings are smaller buildings produced in large quantities; they consist generally of 4 floors or less. Now housing authorities could have kept on replacing the high-rise buildings by low-rise buildings but unfortunately federal officials found out that plan

was too costly and required Chicago to cut costs and build high-rise buildings from now on because the marginal cost of adding floors to elevator buildings was relatively low so up those buildings went. Chicago's Cabrini-Green was built to replace slums back in the 1940's and was seen as a site of hope and promise; City Lab Ben Austen quotes "It was also one of the great ironies of public housing when it was demolished. The arguments for replacing it were that we were saving the people living there from death. Those were the exact same arguments that were used to justify building public housing in the first place. So when public housing emerged on the scene as a nationwide initiative it was accompanied by promises that it would be safe, affordable, government controlled and regulated. In 1965 HUD or the Department of Housing and Urban Development was established, HUB elevated the platform of public housing, it went from being a more locally operated affair to becoming a cabinet level program and by the mid 90's public housing had exploded from a small agency granting mortgage insurance to a massive program with 1.3 million individual housing units managed by approximately 3,400 housing authorities and a sizeable budget.

2.2 Background Information on Morocco:

While data on the reasons people leave their houses is routinely collected by landlords and real Estate developers, very little in-depth research on this issue is undertaken in Morocco. We know that the government must deal with expectations and the bare minimum to house people with their complex needs and remain financially viable, therefore the government created the program “villes sans bidonvilles”, “City without slums”, “VSB” initiated in 2004, it has made it possible to record significant progress in reducing the slums initially targeted and improving the living conditions of low income households by introducing them to public housing. This program is a moderate success that helped eradicate the slums in 85 cities by 2015, 270.000 households benefited at the launch of this program, now rose up to 421.699 households, a 56% increase, the majority of households are satisfied with their housing near 90%, while 84% of families say they are satisfied with the location of the relocation projects (source: Enquête Nationale pour l'évaluation des impacts des programmes de luttres contre l'habitat insalubre sur les conditions de vie des ménages.2015).

This social program basically conceives the city as a programming unit and federates, in a contractual framework, the various Ministerial departments involved as well as the partners concerned at national and local levels. These are VSB contracts, this instrument makes it possible to delimit, formalize and coordinate the missions of each of the stakeholders, including in particular the local authority, local communities and operators such as Al Omrane, Diyar Al Mansour and Idmaj Sakane.

Al Omrane as the leading public operator in the housing and urban development sector, focusing on the eradication of unsanitary housing as one of its priority missions is also a catalyst for national housing production, as such it is involved in the national low-VIT(Low total property value) social housing program.

Low total property value social housing is offered at prices ranging from 140.000 DH to 250.000 DH, supposed to be accessible to Moroccan households has experienced stagnant demand up to 2018 according to available data, the reasons for it having a dormant and idle demand curve, is mainly the restrictions of the 2016 law of finance, which made potential buyers apprehensive of the social housing.

The 250.000 DH housing had buyers purchasing their property excluding VAT, because it is paid by the government, this favor was heavily abused and is now subject to strict conditions established to enforce it firmly.

The low VIT households were supposedly addressed to modest households but it has been also bought by Moroccans for establishing it as a secondary home, which created a fiscal advantage to benefit from the VAT exemption paid by the government, this was fraud and tax evasion. So the government decided that this tax advantage will only be granted to buyers who take the home as their main residence for at least 4 years. From now on the purchaser is required to concede for the state, a mortgage as security for the payment of VAT. The government only allows the mortgage to be released if the buyer presents to the tax authorities a set of documents proving that he lived in this accommodation for 4 years. Otherwise the buyer must return the amount he benefited from and receives penalties.

2.3 Resident Satisfaction Factors

Past studies have discovered that housing fulfillment is affected by factors such as the dwelling unit's attributes, the management, the locational factors and social and estate environment, privacy and space. As well as the offices and administrations accessible to a housing unit are essential in deciding the satisfaction rate such as public facilities, for example, transport, schools, medicinal services, shopping, and parking areas, they have an immense contribution in the levels of life comfort and quality and subsequently have effects on residential satisfaction.

Mohit and Azim (2012) indicated that occupants of public housing in Hulhumale, Maldives, are happier with their public facilities than with their housing condition. Areas of lodging standards incorporate structure type, building features, quality of housing conditions, neighborhood facilities, consumptions, and residency. Neighborhood's qualities such as quietness, greenness, cleanness and security are the key elements affecting residential satisfaction, and that most studies found that local security prevailing indicators of residential satisfaction.

Another indicator is housing characteristics, essential spatial size of residential environment, as inhabitants have higher satisfaction with larger and better structures of housing. Mohit, Ibrahim, and Rashid (2010) explore occupants of public housing in Kuala Lumpur, Malaysia and found that housing highlights, particularly housing unit's size, associate emphatically with residential satisfaction. Household characteristics such as age, sex, family size and income have been demonstrated to directly affect residential satisfaction. For instance age is recognized as a huge

determinant of fulfillment by numerous researchers (Ibem and Amole, 2012; Lu, 2002).

However as it may be the impact of certain elements remains unclear on the grounds that the current observational outcomes struggle with one another. For instance, one study found that household size is negatively connected with higher residential satisfaction (Glaster, 1987); another discovered household size is positively identified with satisfaction (Cook, 1988). The irregularities may result from inhabitants' housing inclinations across different gatherings of individuals in various provinces.

Examining past studies on public housing gives a sign of a few highlights that make the general public housing norms. For instance, the accessibility of desired features and structure types are related; therefore, various services are being offered by different structure types which additionally influence satisfaction with housing units (Johnson and Abernathy, 2983). The availability of space relies upon the structure type, and the amount of space in the dwelling units connects with satisfaction levels (Galster, 1980; Kinsey and Lane, 1983). Single-family homes have been related with more elevated levels of fulfillment than multifamily housing due to accessible amenities, for example, room, privacy, security, and yard space (Morris and Winter, 1978; Rent and Rent, 1978).

People assess their homes not just by their real conditions, but also according to their wants and needs for the future. Housing needs and yearnings are impacted by target household characteristics.

CHAPTER III: DATA AND METHODOLOGY

3.1 Introduction:

Research Methodology is usually followed in any research which is a methodical approach for the process of conducting the research step by step. The methodology is core to the success of the research project. The research methodology will be used to select various aspects that are related to the research and define them. The methodology is critical to evaluate the reliability and validity of the research. The most important and essential procedures will be identified during this methodology development.

3.2 Research Methodology:

Research methodology is defined as the “systemic investigation or inquiry aimed at contributing knowledge of a theory, topic, etc., by careful consideration, observation or study of a subject” according to the Oxford English Dictionary, it ranges from objective, scientific research styles to the subjective, interpretive, more constructive styles. It is the process of looking for a specific answer to a specific question in an organized objective reliable way (Payton, 1979).

3.3 Conceptual Framework:

This research is investigating the satisfaction of the Moroccan residents of public housing according to the most common factors identified. This will bring forth new doors to examine the factors that lack the most in satisfaction and if there is any possible room for improvement.

3.4 Research Approach:

There are two types of methodological approaches which are qualitative and quantitative (Holme and Solvang, 1991; Wierdersheil-Paul and Eriksson 1998; Yin, 1994). Qualitative research were developed in social sciences and are often criticized for being personal, and full of bias, as for the quantitative research methodology is seen as a scientific, objective research style, designed to quantify the extent to which a target group believes or thinks.

3.5 Research Design:

Research design determines the study's purpose, the choice of research methodology approaches is crucial to the research problems and objectives.

Quantitative Research aims to measure percentages or numbers with particularity on instruments, providing a wide range of situations for interpretation. It is used to observe occurrences affecting individuals from a population sample.

Qualitative Research aims to understand the aspect of social life, its methods create words rather than numbers as data analysis. Qualitative approach will determine the factors that have a higher rate of satisfaction in the study. It tries to aim towards accuracy to understand the daily social occurrences and study questions that are only really practiced. Gaining an understanding of a specific organization, rather than a large sample of a population. Understanding from the surroundings of participants and how it affects their behavior.

3.6 Research Strategy:

A research study is going to path us towards conducting a systematic research, where we will be performing our study in the form of a questionnaire survey, in this case the survey is both quantitative and qualitative, as we explore a social aspect of reality taken from a random sample of the population. By answering the survey we can clearly get reliable information on the topic.

3.7 Sources of Data:

We know that data is collected every day in mass, in order to serve individuals seeking it, depending on the nature of data which can be found available either publicized in the form of papers or electronically available. There are two forms in which come data, primary data and secondary data.

Primary data is collected from first-hand sources, using methods like surveys, experiments, or interviews. It is directly collected from the initials sources.

Secondary data is data extracted from already existing data, perhaps applied to new settings or further analysis for a completely different study, secondary data may seem like data drawn out from old data but, secondary data are nevertheless considered legitimate data for research (Blaxter et al., 2001).

3.8 Design of Questionnaire/Survey Questions:

The Survey questions were designed according to the literature review with the aim of the research to achieve our objective, where we found the most common and impactful factors which affect our resident's satisfaction.

3.9 Population, Sample Size and Sampling Techniques for the Study:

In order to proceed with the research, we should collect data from cases and choose a method of sampling. We need to select the appropriate method of sampling to understand the differences. In order to select the correct type of sampling method we need to go through some steps to reach our final decision.

First and foremost we need to clearly identify our target population, in our case it is the population of The Kingdom of Morocco. Afterwards select the sampling frame, they are the cases related to our study from the population, which are residents of public housing. Choosing the sampling technique is the next step where we explore various types of sampling techniques.

There are many types of sampling methods ranging from probability sampling techniques to non-probability sampling techniques.

Probability sampling means that every item in the population has an equal chance of being included in the sample. One way to undertake random sampling would be if researchers was to construct a sampling frame first and then used a random number generation computer program to pick a sample from the sampling frame (Zikmund, 2002). It is renowned as the most costly sample in terms of time and energy for a given level of sampling error but isn't vulnerable to biases (Brown, 1947).

To further more explore the probability samples, they are as follows: Random sampling just as the name suggests is picking randomly from our population frame, systematic sampling is where every nth is selected after our first random sample, and stratified sampling is where our population is divided into groups and we take randomly from each group a sample, cluster sampling is where the whole population is divided into clusters or groups. Subsequently, a random sample is taken from these clusters, all of which are used in the final sample (Wilson, 2010). Cluster sampling is advantageous for those researchers whose subjects are fragmented over large geographical areas as it saves time and money (Davis, 2005).

Non-probability sampling is often associated with case studies where qualitative research is applied. With regards to the latter, case studies tend to focus on small samples and are intended to examine a real life phenomenon, not to make statistical inferences in relation to the wider

population (Yin, 2003). The participants do not need to be representatives or random, but a clear reason needs to be stated for it to be a justification for those participating individuals.

Non-probability sampling methods are as follows: Quota sampling is a non-random sampling technique in which participants are chosen on the basis of predetermined characteristics so that the total sample will have the same distribution of characteristics as the wider population (Davis, 2005)., snowball sampling an approach is most applicable in small populations that are difficult to access due to their closed nature, e.g. secret societies and inaccessible professions (Breweton and Millward, 2001)., convenience sampling which tends to be a favored sampling technique among students as it is inexpensive and an easy option compared to other sampling techniques (Ackoff, 1953)., and judgmental sampling purposive or judgmental sampling is a strategy in which particular settings persons or events are selected deliberately in order to provide important information that cannot be obtained from other choices (Maxwell, 1996).

In our case we will be using the convenience sampling method since it is the easiest and most convenient one, especially during these times of quarantine lockdowns. It comes as totally free, not very time consuming, very convenient, but difficult to confirm people are taking the survey until the very last question.

3.10 Context and Participants:

In Morocco there is no existent study revolving around residential satisfaction unfortunately, research on this topic is unavailable to us.

The fundamental objective of this study is towards improving the housing in Morocco, through improved housing advancements, living conditions, and societal development. All things considered, so as to meet the above points, the following objectives have been detailed for this study:

- To research and inspect the level of residential satisfaction and the factors that influence it with public housing in Morocco.
- To examine the factors of satisfaction with the highest rate of satisfaction and dissatisfaction in public housing in Morocco.
- To recommend suggestions to improve public housing conditions in Morocco.

3.11 Instrument:

A questionnaire survey of 17 questions for each of the 17 factors of the housing satisfaction, each of the most common predictors has been chosen and we will explore through the results of this survey to find out the most dissatisfying factor of housing satisfaction in Morocco, the

factors that will have the highest rate of dissatisfaction will be ranked from worst to better, and vice versa, the factors that will have the highest votes on satisfaction will be ranked from highest to lowest.

The questionnaire will give us results in the form of pie charts with each color assigned to the scale of satisfaction. The levels of satisfaction will be on a five point scale:

Very dissatisfied; dissatisfied; fair; satisfied; Very satisfied.

The ratings will be in the form of graphs, showing which factor is the most problematic, and which factor is the most satisfying. This will give us insight on which ones need more attention and work to develop to the other factors levels.

3.12 Data Collection:

Data collection techniques are specific procedures, often derived from theory observation, interviews, questionnaires, and case studies. The methods of data collection tend to be either quantitative or qualitative as it is very time consuming to collect specific data.

The questionnaire survey was delivered through social media, as restrictions caused by the covid-19 pandemic, limiting our volume of distribution to the specific parties involved. Other restrictions causing data collection issues are language, as most residents we are acquainted with

were not English speakers. The option of delivering the survey into letter boxes was perceived as a risk that we would not take due to the ease of spread of the virus; therefore we couldn't rely on sending any letters. Any possible physical contact, whether through meet-ups, door to door survey, or letters, in order to reach as many participants as possible was not carried out although being the most effective ways to get more participants.

The data was collected anonymously through sharing the survey online to family and friends who then distributed the survey themselves through sharing on their social media accounts and so it kept on going.

We used the quantitative and qualitative method to focus on the preferences of the participants in the study and collected 95 anonymous responders from different residential blocks around the Kingdom of Morocco; we presume that the sample consists of both public and private housing estates.

3.13 Conclusion:

This chapter presented the methodology used in this study and focused on, research methodology, conceptual framework, research approach, research design, research strategy,

sources of data, design of questionnaire survey, population, sample size and sampling techniques for the study, context and participants, instrument, and data collection.

CHAPTER IV: FINDINGS

4.1 Introduction:

This chapter's goal is to present the results we collected from our previous data from respondents of our Moroccan resident satisfaction survey. We will be examining the results received from our survey about the factors performance in terms of satisfaction in pie charts. In this chapter we will do a quantitative analysis and discuss the findings by identifying the factors that will perform the lowest as well as the highest to have a clear view of the weakness that will present itself as well as the strongest factor with the highest rate of satisfaction which will be subsequently the most popular. Afterwards we will rate the factors from most satisfying to the least satisfying. Then we will try to suggest solutions or improvements that need to be made in order to better the living conditions of residents of public housing in Morocco.

4.2 Quantitative analysis and discussion of findings:

Quantitative analysis involves taking mathematical and statistical measurements and research to understand a certain behavior represented by a given numerical value (e.g. tables and percentages). This will cover and display the percentages received from our survey on resident's satisfaction with the common factors. All the data set used for this analysis was derived from responses generated from the research questionnaires. The findings displayed are in the form of a pie chart in order to provide a better visual illustration of the data collected. The survey was conducted on a total of 95 participants.

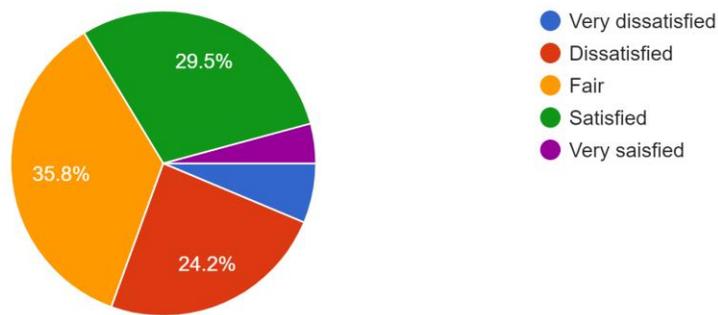
4.3 Information collected through the questionnaire:

The questionnaire is used as the main form of data collection; it was filled out by 95 respondents across the country that lives in public housing. The objective of the questions is to determine which satisfaction level the participants chose for each satisfaction factor. The questionnaire had 17 factors, and an additional comment section that was not optional, but among 95 participants, 2 left a comment. Each factor on the questionnaire will be analyzed individually on its importance and rate of satisfaction. In the comment section, it is noted that some of the participants are from private real estate developers and Alliance/Doha which are public real estate developers.

4.4 Satisfaction with Physical Features of housing units:

This section discusses the satisfaction levels of the physical features, which are the apartment's space, ventilation, and unit's space.

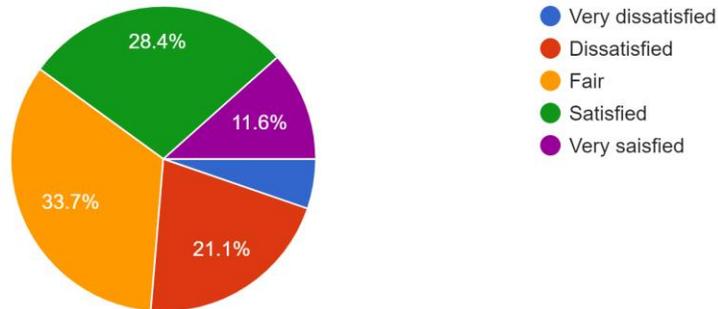
Apartment building design
95 responses



This chart shows us that the majority of residents have rated their satisfaction with the apartment building's design as fair and satisfied, more interestingly 24.2% are dissatisfied which still counts in this case as a significant percentage. As for the very satisfied rate, it is at 4.2% and the very dissatisfied rate is at 6.3%.

Apartment space

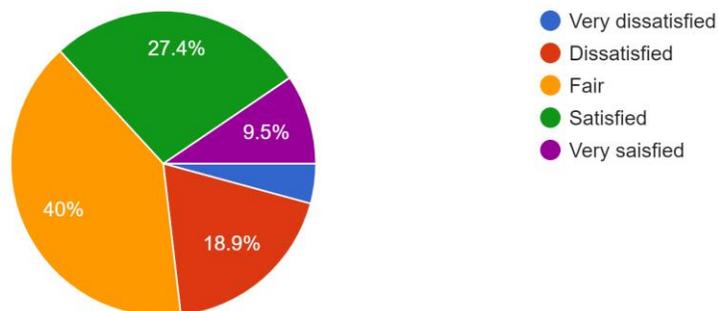
95 responses



Apartment space holds similar percentages where most of the participants are quite satisfied, especially 11.6% of them have chosen the “very satisfied” rate. We might theorize that living in a clustered environment isn’t that common amongst the residents of public housing or isn’t a big issue.

Ventilation

95 responses



Ventilation got a high average score of 40%, with a surprising 9.5% very satisfied percentage of participants, in our own experience, housing units, especially in hot cities (e.g. Marrakech, Essouira) do come equipped with A/C and ventilation.

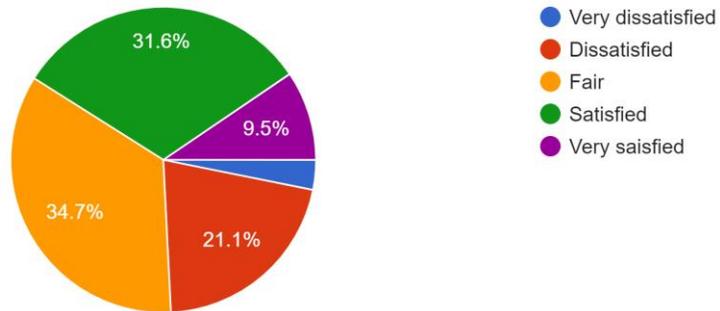
4.5 Services Provided within the housing unit:

In this section, the services provided within the housing units are as follows. Maintenance of the common areas, sanitation, plumbing services and repairs, lighting, management, and security.

This is where we cover some of the fundamental services for a housing unit to be of at least the bare minimum acceptable.

Maintenance of common areas

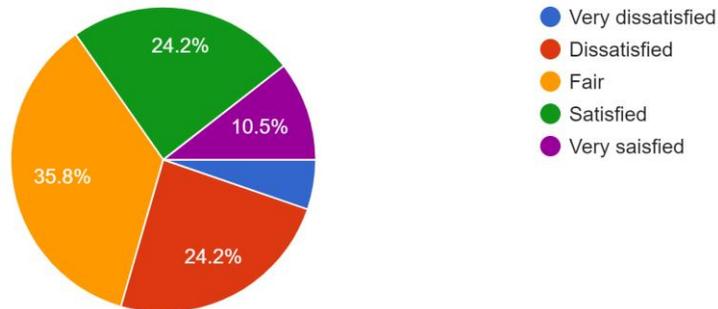
95 responses



From our participants we got a close number between “fair” 34.7% and “satisfied” 31.6% with only a difference of 3.1%, we could say that this factor is performing well and will continue to,

only a small portion of 3.2% that we might need to consider is voting on a very negative satisfaction.

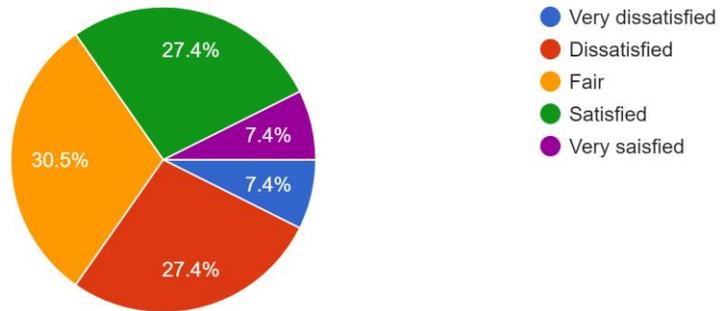
Sanitation and cleaning service
95 responses



The sanitation and cleaning service is perceived by all as the determining factors that we can all agree with, to be as important as security, if not more during this year. A perfect sanitation service can prevent disease, pests, and a dirty environment. Surprisingly 24.2% is scored by both the satisfied and dissatisfied participants, and a 5.3% "very dissatisfied" vote. With this you can

easily see the importance in reducing the dissatisfied votes in order to keep people safe and comfortable.

Plumbing and plumbing repair services
95 responses



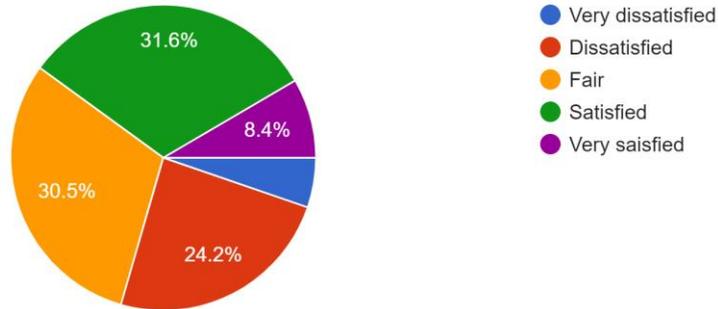
This part of the repair services focuses on the plumbing and condition of plumbing in the housing units. This graph suggests that there are similar percentages of people with the 27.4%

rate of satisfied and dissatisfied, and an identical 7.5% very satisfied and very dissatisfied rating.

The rest is 30.5% who have given an average rating on the plumbing and plumbing services.

Lighting and electricity

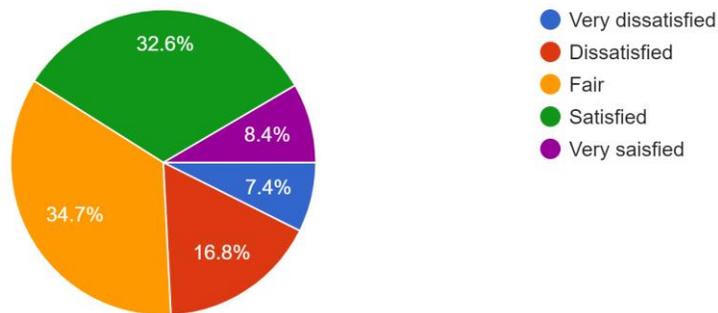
95 responses



Analyzing this graph demonstrates that the majority is satisfied with the state of their lighting and electricity, even a significant portion of 8.4% said they were very satisfied with their lighting. 24.2% were not satisfied and 5.3% were very dissatisfied.

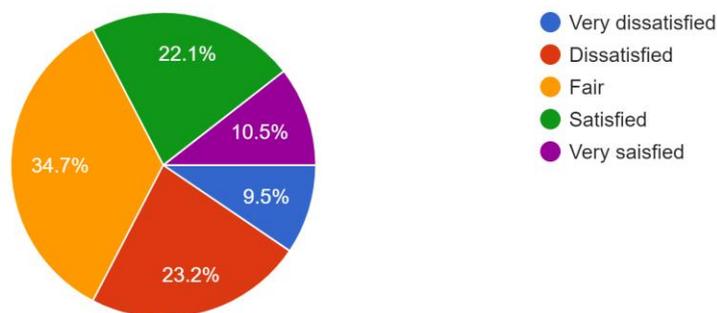
Management's response rate to your concerns

95 responses



In Morocco, management is chosen through a vote between the residents, and one of them will get elected to maintain and hold all the responsibilities of the housing units he belongs to. He takes care of the repairs, complaints, and emergencies. For this graph we can clearly have a variety of opinions on the response rate of such management. 32.6% “satisfied”, 34.7% fair, 16.8% “dissatisfied”, 8.4% ‘very satisfied”, and 7.4% “very dissatisfied”. Commonly you find people somewhat satisfied with their management, but there are occurrences where the elected manager is dishonest, this could lead to re-electing another manager and going to court.

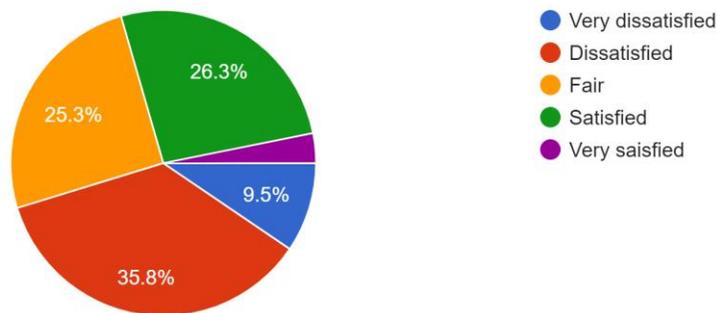
Management's enforcement of regulations
95 responses



In this section of the management’s enforcement of regulations, it turns out to have a slightly higher level dissatisfaction over the satisfied rate with a 1.1% difference, there is also a 1% difference between the extreme rates satisfaction. In Morocco, the building manager is in charge of internal and external affairs of the building, collecting rent and other payments, the manager has this position of trust, where all residents give the funds needed for the building to him, if

there is any dishonesty and fraud, the manager could be prosecuted in a courtroom, and possibly go to prison. Dishonesty and fraud is a common story you hear from residents of public housing. Keep in mind that we got these ratings from public and as well as private social housing units across the country, it is a wide spectrum from where we got our rates of satisfaction, these stories might be repeating themselves as of right now in these charts.

Security
95 responses

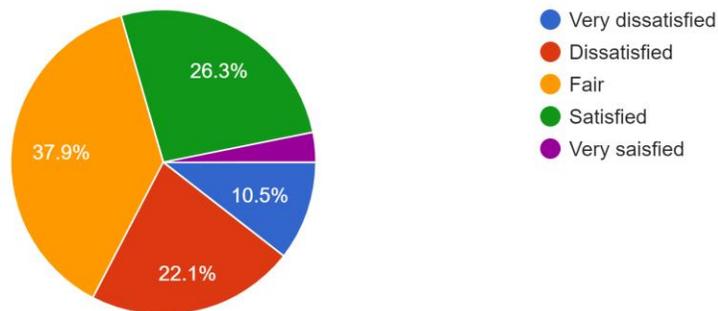


In this chart we can see the security's level of satisfaction being quite low at a 35.8% dissatisfaction rate, but a nearly identical satisfied and fair rate with a 1% difference. We can also see that the "very dissatisfied" rate in particular with 9.5% and only 3.2% feel very satisfied about their safety. This can be explained by the location of these public housing units, in urban

areas, the exterior world or neighbors might be in some way dangerous or hostile and this calls for attention.

4.6 Social Environment within the housing area:

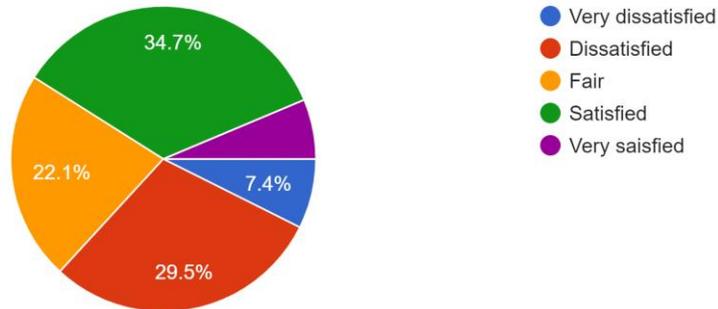
State of roads
95 responses



Nearly 40% are supposedly okay with the state of the roads around them, a higher satisfaction rate here is recorded, although a noteworthy 10.5% very dissatisfied residents on the state of the roads can be seen.

Condition of staircase and elevator

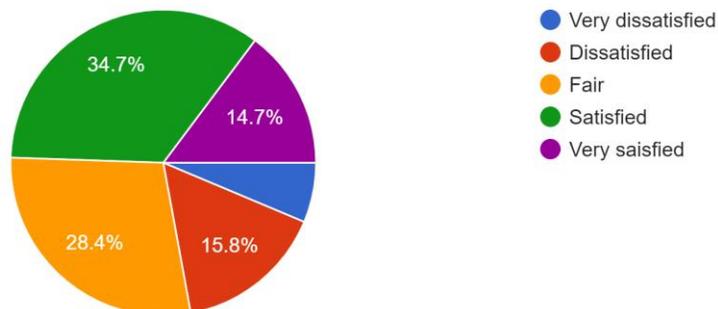
95 responses



In this section we examine the staircases and elevator's condition, interestingly the majority seems satisfied with a 34.7% satisfaction rate, and only 6.3% are very satisfied, 29.5% for the dissatisfied votes exceeding the "fair" rating by 7.5%.

Neighborhood relations

95 responses

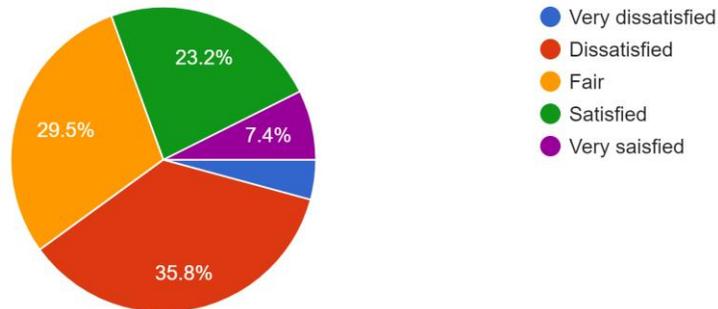


Humans are social beings, Moroccans are even more social, they love to have a good laugh, as expected the ratings for satisfaction are very high with a 34.7% "satisfied", 28.4% "Fair", and an

impressive 14.7% “Very satisfied”. Only a small portion of 15.8% are dissatisfied with their neighborhood relations. It is noted on the comment section that neighbors may throw garbage in

empty lands around the housing area which is a behavior that definitely leads to some sort dissatisfaction related to the neighbor relations.

Privacy
95 responses

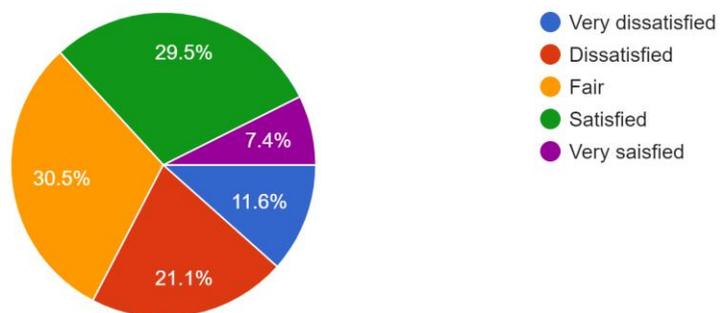


One might argue that privacy might be the determinant factor of comfort therefore satisfaction, and we got a bad satisfaction rate with 35.8% of participants dissatisfied with their privacy, 23.2% satisfied and 7.4% very satisfied. 29.5% chose the “Fair” level of satisfaction.

4.7 Satisfaction with Public Facilities:

Access to hospitals

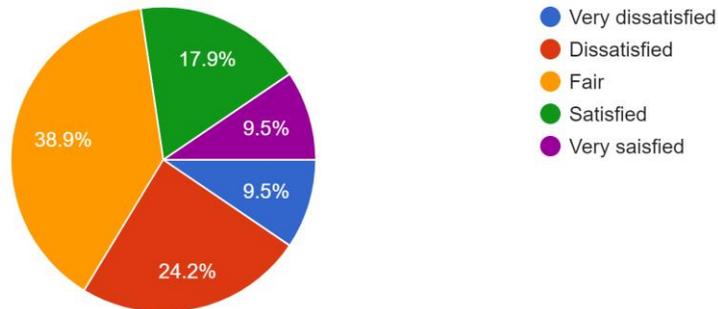
95 responses



On this chart we have the accessibility to hospitals, according to our sample here 29.5% are satisfied, 21.1% are dissatisfied, 7.4% very satisfied, and 11.6% very dissatisfied. In Morocco,

hospitals and accessibility to them is dismal, but lately with the spread of the coronavirus measures were taken and the healthcare system is changing.

Access to public transportation
95 responses

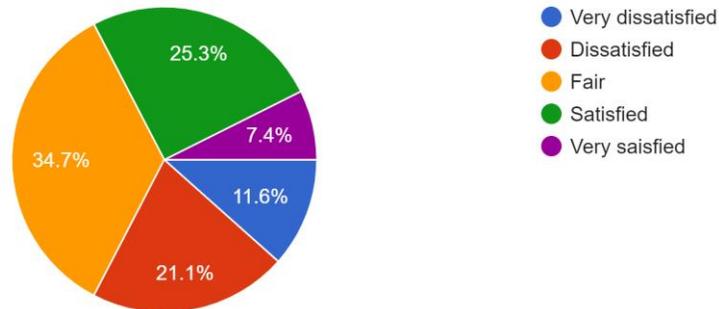


The public transport in Morocco is some would say dreadful, but accessibility yo it should not be an issue, except for residents of public housing, some of the real estate developers choose their lands based on convenience of prices, and decide to build in deserted or secluded areas, where you are most likely to take a walk before reaching the main street for a taxi or a bus stop.

Therefore 24.2% are dissatisfied with their access to public transport, 38.9% have chosen “Fair”,

and 17.9% are completely satisfied. As for the extreme ends of the levels of satisfaction they are both sitting at 9.5%.

Access to schools
95 responses



In this chart we see 25.3% residents satisfied with their access to schools, in big cities private and as well as public real estate developers tend to build their social housing units near schools and commercial areas. Still we have 21.1% who are not satisfied and this might go into correlation with the access to transport, some factors can be codependent and cause

dissatisfaction if one or the other is lacking or missing. As well as 11.6% very unsatisfied and 7.4% very satisfied residents are recorded on the chart.

4.8 Overall Satisfaction with Public Housing in Morocco

In this section we will rate each of the factors from most satisfying to most dissatisfying, we will proceed by adding up the “satisfied” and “very satisfied” levels together as well as the “dissatisfied” and “very dissatisfied” to get a sum that will help us rate the factors.

The ranking will be in the form of 2 lists of 2 columns each named “Factors of satisfaction”, “most satisfying factor” and “most dissatisfying factor”. They will have the sum of percentages of satisfaction associated appropriately with each of the lists they belong to.

The first list highlighted in blue represents the positive satisfaction rates, ranked from highest to lowest.

The second list highlighted in red represents the negative satisfaction rates, ranked from highest to lowest.

We will be examining the rankings and discover if there are any similarities or differences that are worth mentioning.

4.9 Positive Satisfaction rates (Highest to Lowest):

Factors of satisfaction	Satisfaction Rate
Neighborhood relations	49.40%
Maintenance of common areas	41.10%
Management's response rate to your concerns	41%
Condition of staircase and elevator	41%

Apartment space	40%
Lighting and electricity	40%
Ventilation	36.90%
Access to hospitals	36.90%
Plumbing and plumbing repair services	34.80%
Sanitation and cleaning service	34.70%
Apartment building design	33.70%
Access to schools	32.70%
Management's enforcement of regulations	32.60%
Privacy	30.6
Security	29.50%
State of roads	29.50%
Access to public transportation	27.40%

4.10 Negative Satisfaction rates (Highest to Lowest):

Factors of satisfaction	Satisfaction Rate
Security	45.30%
Privacy	40%
Condition of staircase and elevator	36.90%
Plumbing and plumbing repair services	34.80%
Access to public transportation	33.70%
Management's enforcement of regulations	32.70%
Access to hospitals	32.70%
Access to schools	32.70%
State of roads	32.60%

Apartment building design	30.50%
Sanitation and cleaning service	29.50%
Lighting and electricity	29.50%
Apartment space	26.40%
Maintenance of common areas	24.30%
Management's response rate to your concerns	24.20%
Ventilation	23.10%
Neighborhood relations	22.10%

4.11 Analysis of the Rankings:

After comparing the two lists, we can see a parallelism between Neighborhood relations, Management's response rate, Apartment space, and Lighting and electricity. They are parallel to each other where they are ranked as 1st, 3rd, 5th, and 6th, in the positive satisfaction list starting from above, and the same ranks starting from below the negative satisfaction list.

Other similarities can be seen, for example the condition of the staircases and elevators is ranked in a high position in both lists, where in the blue list it is ranked as the 4th and 3th in the red list, as well as the security and privacy who are ranked very low in the blue list and are the top 2 factors with the highest dissatisfaction rate.

Some of the factors are nearly parallel, suggesting that they are equal rankers whether on the blue list or the red list, such as the Access to public transportation that has the worst percentage

of positive satisfaction, but 5th most dissatisfying factor in the red list. Management's enforcement of regulations is also almost parallel in both lists, ranked 6th in the red list and 5th in the blue list from below.

We believe that this parallelism is bad balancing in order to identify what needs to be improved or changed in these particular factors. When the factors are far apart from each other it is easier to find solutions because its high rate of positive satisfaction is readily-comprehensible with its boons and benefits and helps to easily identify the areas that need improvement.

CHAPTER V: CONCLUSION

5.1 Introduction:

This chapter summarizes the study and the findings of the research questions, the next section will be stating the summary of findings, conclusion, and future research.

5.2 Summary of findings:

The research successfully answered the questions of identifying the factors of satisfaction in public housing, we found 17 factors were the most common and relevant to study, most of them can just be brainstormed for a minute in order to identify. We decided to put them into a survey

and see what people across the kingdom think of their satisfaction rate if connected with their real life experience. This experiment gave us numbers and percentages from 95 anonymous participants that we were able to work with and find out further more about these factors. Putting these factors into a ranking system helped us see the ones in need of improvement and if there was any parallelism. They were ranked from most comfortable factors the residents are experiencing to the least comfortable, where we found the parallel factors from both ranking lists to cause unbalance and difficulty in correcting the inconveniences they are creating in their environment.

5.3 Conclusion:

The study explored the public satisfaction of residents in Morocco, using various factors that we base our research upon in order to identify the levels of satisfaction of residents. The research had a variety of responses from the questionnaire that were split into categories to easily follow the ratings just by selecting where it belongs to. We found the majority of residents to be on the positive side and satisfied, with an almost recurring 30% or more “Fair” rating. The factors with the most dissatisfaction were ranked according to the total of dissatisfaction, and the same method was used to calculate the most satisfying factors. The highest levels of dissatisfaction found were security, privacy and condition of staircases, elevators, plumbing and plumbing

repairs, and access to transport, the top five with the security factor reaching a high number leaving a significant gap between it and the second one.

In conclusion the resident's satisfaction is mainly focused on the physical features of the housing units, the services provided, social environment, and public facilities nearby. Meaning if neglecting one of these or making it more difficult to have or access, it will create unbalance and dissatisfaction for the residents, a home is not a place it's a feeling.

5.4 Future Research:

Additional research should be carried out in Morocco on residents satisfaction and public housing residency, to obtain more knowledge and insight to what creates a higher level of satisfaction, and what brings it down to correct it. Residents' satisfaction came a long way since the 20th century with suburbs and the introduction of the first public housing units, but still needs to live up to society's standards nowadays, and meet the bare minimum expectations. Therefore it would be interesting if further research with a much larger sample size was carried out to fully or partially confirm the findings of this study.

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APPENDICES

Survey Questionnaire

Public Housing Satisfaction Factors Rating

Welcome! I kindly ask for your cooperation to complete the following survey about residential satisfaction that will help me grasp a better understanding on the satisfaction of Moroccan residents. Please indicate your level of satisfaction with respect to each of the areas listed in this survey. This survey is anonymous, and the data will be used exclusively for the purposes of my senior thesis.

Researcher's name: **Khrouz Saad.**

Degree: **Bachelor of Business Administration (BBA).**

Email: saadkhrouz@gmail.com

Supervisor: **Hassan Belhiah.**

Security

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

Privacy

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

Management's enforcement of regulations

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied

- Very satisfied

Management's response rate to your concerns

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

Neighborhood relations

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

Lighting and electricity

- Very dissatisfied
- Dissatisfied
- Fair

- Satisfied
- Very satisfied

Plumbing and plumbing repair services

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

Sanitation and cleaning service

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

Maintenance of common areas

- Very dissatisfied
- Dissatisfied

- Fair
- Satisfied
- Very satisfied

Condition of staircase and elevator

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

Ventilation

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

Apartment space

- Very dissatisfied

- Dissatisfied
- Fair
- Satisfied
- Very satisfied

State of roads

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

Apartment building design

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

Access to hospitals

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

Access to public transportation

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

Access to schools

- Very dissatisfied
- Dissatisfied
- Fair
- Satisfied
- Very satisfied

If you have any other comment about the subject

Short answer text